

# Terrestrial Animal Health Standards Commission

## September 2012 Report

### USA Comments - recommended changes shown in blue font

#### CHAPTER 8.13.

#### INFECTION WITH *TRICHINELLA* SPP.

##### Article 8.13.1.

##### General provisions

Trichinellosis is a widely distributed *zoonosis* caused by eating raw or undercooked *meat* from *Trichinella*-infected food *animals* or *wildlife*. Given that clinical signs of trichinellosis are not generally recognised in *animals*, the importance of trichinellosis lies exclusively in the risk posed to humans and costs of control in slaughter populations.

The adult parasite and the larval forms live in the small intestine and muscles (respectively) of many mammalian, avian and reptile host species. Within the genus *Trichinella*, twelve genotypes have been identified, nine of which have been designated as species. There is geographical variation amongst the genotypes.

Prevention of *infection* in susceptible species of domestic *animals* intended for human consumption relies on the prevention of exposure of those *animals* to the *meat* and *meat products* of *Trichinella*-infected animals. This includes consumption of food waste of domestic animal origin, rodents and *wildlife*.

*Meat* and *meat products* derived from *wildlife* should always be considered a potential source of *infection* for humans. Therefore untested *meat* and *meat products* of *wildlife* may pose a public health risk.

For the purposes of the *Terrestrial Code*, *Trichinella infection* is defined as an *infection* of suids or equids by parasites of the genus *Trichinella*.

This chapter provides recommendations for on-farm prevention of *Trichinella infection* in domestic pigs (*Sus scrofa domesticus*), and safe trade of *meat* and *meat products* derived from suids and equids. This chapter should be read in conjunction with the Codex Alimentarius Code of Hygienic Practice for Meat (CAC/RCP 58-2005).

Methods for the detection of *Trichinella infection* in pigs and other animal species [for the purpose of meat inspection](#) include direct demonstration of *Trichinella* larvae in muscle samples. Demonstration of the presence of *Trichinella*-specific circulating antibodies using a validated serological test may be useful for [risk assessments, surveillance and](#) epidemiological purposes.

Standards for diagnostic tests are described in the *Terrestrial Manual*.

**Rationale:** Suggested text added to provide clarity and breadth of purpose.

Article 8.13.2.

**Safe commodities**

When authorising the import or transit of the following *commodities*, *Veterinary Authorities* should not require any *Trichinella* related conditions, regardless of the status of the animal population of the *exporting country* or *zone*:

1. hides, skins, hair and bristles;
2. semen, embryos and oocytes;

Article 8.13.3.

**Measures to prevent infection in domestic pig herds kept under controlled management conditions**

1. Prevention of *infection* is dependent on minimising exposure to potential sources of *Trichinella*:
  - a) facilities and the surrounding environment should be managed to prevent exposure of pigs to rats ~~rodents~~ and *wildlife*;

**Rationale:** Suggest that the term rats or “scavenging rodents” be used instead of the term rodents. Squirrels and other herbivorous rodents present no risk to a herd.

- b) raw food waste of animal origin should not be present at the farm level;
  - c) feed should comply with the requirements in Chapter 6.3. and should be stored in a manner to prevent access by rodents and *wildlife*;
  - d) a rodent control programme should be in place;
  - e) dead *animals* should be immediately disposed of in accordance with provisions of Chapter 4.12.;
  - f) introduced pigs should originate from herds officially recognised as being under controlled management conditions as described in point 2., or from herds of a *compartment* with a negligible risk of *Trichinella infection*, as described in Article 8.13.5.
2. The *Veterinary Authority* may officially recognise pig *herds* as being under controlled management conditions if:
  - a) all management practices described in point 1. are complied with and recorded;
  - b) at least two visits, a minimum of 6 months apart, have been made by a qualified auditor in the 12 months preceding recognition to verify compliance with good management practices described in point 1.;

**Rationale:** Added text suggested to tighten the text and ensure that auditors be qualified to conduct the work.

- c) a subsequent programme of audits is conducted.

Article 8.13.4.

**Prerequisite criteria for the establishment of a compartment with a negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions**

A *compartment* with a negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions can only be established if the following criteria are met in the country, as applicable:

1. *Trichinella* infection in all species of susceptible **food** animals is notifiable in the whole territory and communication procedures on the occurrence of *Trichinella* infection is established between the *Veterinary Authority* and the Public Health Authority;
2. the *Veterinary Authority* has current knowledge of, and authority over, all domestic pigs;
3. ~~the *Veterinary Authority* has current knowledge of the distribution of susceptible species of wildlife;~~

**Rationale:** It is not possible for the *Veterinary Authority* to have knowledge of the distribution for all mammalian wildlife. Further, this knowledge is not relevant to pigs reared in biosecure management systems.

4. an *animal identification* and *traceability* system for domestic pigs is implemented in accordance with the provisions of Chapters 4.1. and 4.2.;
5. ~~appropriate provisions are in place for tracing of meat from wild animals harvested for human consumption;~~

**Rationale:** Countries cannot ensure provisions to enable tracing of hunted wild game unless it is being sold commercially. This information is not relevant to pigs raised in confinement management systems. For public health purposes, a provision could be added elsewhere that all wild game should be tested prior to being consumed.

6. ~~surveillance appropriate to the assessed epidemiological situation and capable of detecting the presence of *Trichinella* infection (including genotype, if relevant) in domestic pigs and exposure pathways, is in place.~~

**Rationale:** For swine raised under controlled management conditions, and regularly audited, a surveillance program is not necessary because appropriate control is attained by biosecurity. Biosecurity in confinement management systems virtually eliminates any chance of a pig being exposed to *Trichinella*. Considering the extremely low risk for exposure of pigs raised in total confinement, surveillance of this population would need to be based on a design prevalence that would require almost all pigs to be tested and would pose an unnecessary burden on the producer.

Article 8.13.5.

**Compartment with a negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions**

A *compartment* may be officially recognised as having negligible risk of *Trichinella* infection in domestic pigs kept under controlled management conditions if the following conditions are met:

1. all herds of the *compartment* comply with requirements in Article 8.13.3.;

2. the criteria described in Article 8.13.4. have been complied with for at least 24 months;
3. ~~the absence of *Trichinella* infection in the compartment has been demonstrated by a surveillance programme. The choice of design, including duration, prevalence and confidence levels should be based on the prevailing, or historical, epidemiological situation, as appropriate, in accordance with Chapter 1.4. and using tests described in the *Terrestrial Manual*;~~

**Rationale:** For swine raised under controlled management conditions, and regularly audited, a surveillance program is not necessary because appropriate control is achieved by biosecurity. Biosecurity in confinement management systems virtually eliminates any chance of a pig being exposed to *Trichinella*. Considering the extremely low risk for exposure of pigs raised in total confinement, surveillance of this population would need to be based on a design prevalence that would require almost all pigs to be tested and would pose an unnecessary burden on the producer.

4. ~~once a compartment is established, a subsequent programme of audits of all herds within the compartment is in place to ensure compliance with Article 8.13.3.;~~

**Rationale:** Redundant as the auditing requirements are already addressed in 8.13.3, paragraph 2.

- 5.3 if ~~an~~ the audit identifies a lack of compliance with one or more of the criteria described in Article 8.13.3. and the *Veterinary Authority* determines this to be a significant breach of biosecurity, the herd(s) concerned should be removed from the compartment until compliance is re-established.

#### OR

4. the absence of *Trichinella* infection in the compartment has been demonstrated by a surveillance programme. The choice of design, including duration, prevalence and confidence levels should be based on the prevailing, or historical, epidemiological situation, as appropriate, in accordance with Chapter 1.4. and using tests described in the *Terrestrial Manual*;

**Rationale:** For those countries where *Trichinella* in commercial swine is nearly eradicated this chapter also needs to include the flexibility to prove negligible risk through surveillance that shows *Trichinella* is absent from the compartment. This needs to be done through statistically valid surveillance sampling and testing without the need for herd certification of controlled management conditions.

The United States is open to further elaboration of requirements of this option, including definition of the compartment (pigs identified by slaughter facilities operators as deriving from biosecure management systems, specific surveillance parameters for assigning negligible risk [e.g., surveillance which demonstrates absence of infection in the compartment at a design prevalence of 1/100,000]) and referencing the use of public health records for human trichinellosis as a factor in assigning negligible risk.

#### Article 8.13.6.

#### **Recommendations for the importation of meat or meat products of domestic pigs**

*Veterinary Authorities* of importing countries should require the presentation of an *international veterinary certificate* attesting that the entire consignment of *meat* or *meat products*:

1. has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

2. either:

- a) comes from domestic pigs originating from a *compartment* with a negligible risk for *Trichinella infection* in accordance with Article 8.13.5.;

OR

- b) comes from domestic pigs that tested negative by the digestion method for the detection of *Trichinella* larvae, as described in the *Terrestrial Manual*;

OR

- c) was processed to ensure the inactivation of *Trichinella* larvae in accordance with Codex recommendations [under study].

Article 8.13.7.

### **Recommendations for the importation of meat or meat products of wild or feral pigs**

*Veterinary Authorities of importing countries* should require the presentation of an *international veterinary certificate* attesting that the entire consignment of *meat* or *meat products*:

- 1. has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

2. either:

- a) comes from *wild* or *feral* pigs that tested negative by the digestion method for the detection of *Trichinella* larvae, as described in the *Terrestrial Manual*;

OR

- b) was processed to ensure the inactivation of *Trichinella* larvae in accordance with Codex recommendations [under study].

Article 8.13.8.

### **Recommendations for the importation of meat or meat products of domestic equids**

*Veterinary Authorities of importing countries* should require the presentation of an *international veterinary certificate* attesting that the entire consignment of *meat* or *meat products* comes from domestic equids:

- 1. has been produced in accordance with the Codex Code of Hygienic Practice for Meat (CAC/RCP 58-2005);

AND

- 2. that tested negative by the digestion method for *Trichinella* as described in the *Terrestrial Manual*.

Article 8.13.9.

### **Recommendations for the importation of meat or meat products of wild and feral equids**

*Veterinary Authorities of importing countries* should require the presentation of an *international veterinary certificate* attesting that the entire consignment of *meat* or *meat products* comes from *wild* or *feral* equids:

1. that were inspected in accordance with the provisions in Chapter 6.2;

AND

2. that tested negative by the digestion method for *Trichinella* as described in the *Terrestrial Manual*.
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